Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Previously Amended) A method of scheduling transmissions from a multi-beam transmitter to a plurality of receivers comprising:

determining an angle of departure for each of the plurality of receivers;

scheduling transmission to receivers based upon separation between angles of departure between scheduled receivers, wherein a minimum angle of separation constraint is imposed that requires any two receivers which are scheduled during a given scheduling interval to have angles of departure separated by at least a first minimum angle of separation;

wherein the scheduling transmission to the receivers comprises:

a) scheduling a first receiver;

b) determining a receiver of remaining receivers which has a largest angle of separation with previously scheduled receivers and scheduling that receiver subject to the constraint.

6. (Currently Amended) A method according to claim 5 further comprising for each scheduling interval:

logically dividing the receivers into low priority receivers and high priority receivers;

wherein scheduling transmission to the receivers further comprises scheduling the high

priority receivers before scheduling the ~~high~~ low priority receivers.

7. (Previously Amended) A method according to claim 5 further comprising for each scheduling interval:

logically dividing the receivers according to at least three groups each having a respective priority ranging from lowest to highest;

wherein scheduling transmission to the receivers further comprises scheduling the groups of receivers in decreasing order of priority.

8. (Previously Amended) A method of scheduling transmissions from a multi-beam transmitter to a plurality of receivers, the method comprising:

determining an angle of departure for each of the plurality of receivers;

scheduling transmission to receivers based upon separation between angles of departure between scheduled receivers, wherein a minimum angle of separation constraint is imposed that requires any two receivers which are scheduled during a given scheduling interval to have angles of departure separated by at least a first minimum angle of separation;

wherein scheduling transmission to receivers comprises for each scheduling interval:

logically dividing the receivers into low priority receivers and high priority receivers, and scheduling the high priority receivers before scheduling the low priority receivers;

wherein scheduling the high priority receivers comprises:

a) determining a high priority receiver with a poorest performance metric and scheduling that receiver;

b) determining a high priority receiver with a next poorest performance metric and scheduling that high priority receiver unless that high priority receiver has a minimum angle of separation with a previously scheduled receiver which does not satisfy the constraint; and

wherein scheduling the low priority receivers comprises:

c) determining a low priority receiver which has a largest angle of separation with previously scheduled receivers and scheduling that user subject to the constraint.

9. (Original) A method according to claim 8 further comprising repeating step b) until there are no further high priority receivers that satisfy the constraints.

10. (Original) A method according to claim 9 further comprising repeating d) for further low priority receivers until no further low priority receiver satisfies the constraint or until there is no further capacity to schedule.

11. (Previously Amended) A method according to claim 5 applied to each of a plurality of sectors being serviced by a wireless network node.

12. (Original) A method according to claim 11 wherein the wireless network node is a network access point, and each receiver is a local access point.

13. (Original) A method according to claim 11 further comprising:

determining if there is any pair of receivers of different sectors which have angles of departure separated by less than a second minimum angle of separation;

for each such pair of receivers, eliminating one of the pair of receivers from consideration for scheduling.

14. (Original) A method according to claim 13 wherein the one of the pair of receivers eliminated from consideration is selected on the basis of cumulative throughput, with the receiver having higher cumulative throughput being eliminated.

15. (Previously Amended) A method according to claim 5 further comprising:

at a beginning of scheduling for each scheduling interval, eliminating at least one receiver from consideration for scheduling.

16. (Original) A method according to claim 8 applied to each of a plurality of sectors being serviced by a wireless network node, wherein the performance metric comprises cumulative

throughput, the method further comprising:

determining if there is any pair of receivers of different sectors which have angles of departure separated by less than a second minimum angle of separation;

for each such pair of users, eliminating one of the pair of receivers from consideration for scheduling on the basis of cumulative throughput, with the higher cumulative throughput receiver of the pair being eliminated.

17. (Currently Amended) A method according to claim ~~2~~ 5 wherein the multi-beam transmitter comprises an adaptive beamforming transmitter, the method further comprising performing adaptive beamforming for the scheduled receivers.

18. (Previously Amended) A method according to claim 5 wherein the multi-beam transmitter generates a plurality of substantially fixed beams which are individually directable, the method further comprising directing each of the substantially fixed beams.

19. (Previously Amended) A method according to claim 5 wherein the multi-beam transmitter is a fixed multi-beam transmitter which generates an array of beams which are collectively steerable to a plurality of fixed rotational states, and individually activatable.

20. (Previously Amended) A transmitter adapted to implement a method according to claim 5.

21. (Original) A transmitter according to claim 20 in the form of a network access point.

22. (Previously Amended) A system comprising:

a wireless network node adapted to implement a method according to claim 5;

a plurality of receivers.

23. (Original) A system according to claim 22 wherein the wireless network node is a network access point, and each receiver is a local access point.

24. (Previously Amended) A computer readable medium having instructions stored thereon for

implementing a method according to claim 5.

25. (Cancelled)

26. (Previously Amended) A transmitter comprising:

a multi-beam antenna;

a scheduler adapted to determine an angle of departure for each of a plurality of receivers and to schedule transmission to each receiver on an appropriate beam of the multi-beam antenna based upon separation between angles of departure between scheduled receivers;

wherein a minimum angle of separation constraint is imposed that requires any two receivers which are scheduled during a given scheduling interval to have angles of departure separated by at least a first minimum angle of separation;

wherein the scheduler is adapted to schedule transmission to each receiver by

a) scheduling a first receiver; and

b) determining a receiver of remaining receivers which has a largest angle of separation with previously scheduled receivers and scheduling that receiver subject to the constraint.

27. (Original) A transmitter according to claim 26 wherein the scheduler is adapted to determine an angle of departure for each receiver by receiving an angle of arrival information from each receiver, and deriving the angle of departure from the angle of arrival information.

28. (Previously Amended) A transmitter according to claim 26 wherein the multi-beam antenna is an adaptive beamforming antenna.

29. (Previously Amended) A transmitter according to claim 26 wherein the multi-beam antenna is a fixed steering beam antenna.

30. (Previously Amended) A transmitter according to claim 26 wherein the multi-beam antenna generates a plurality of beams having substantially fixed shapes which are individually

directable.

31. (Previously Amended) A transmitter according to claim 26 in the form of a network access point.